September 3, 2003

VIA ELECTRONIC FILING

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

Re: *In re Implementation of Section 304 of the Telecommunications Act of 1996; Commercial Availability of Navigation Devices*, CS Docket No. 97-80;
In re Compatibility Between Cable Systems and Consumer Electronics Equipment, PP Docket No. 00-67
Ex Parte Communication

Dear Ms. Dortch:

This letter supplements the joint *ex parte* filing submitted by Microsoft Corporation (Microsoft) and Hewlett-Packard Corporation (HP) in the above-referenced proceeding on August 8, 2003 (the August 8 *Ex Parte*). The August 8 *Ex Parte* detailed Microsoft's and HP's concerns that certain provisions of the pending *Plug-and-Play Proposal*,[1] if left unchanged, would operate to preclude IT developers and manufacturers from marketing PCs (and other IT devices that have an open architecture) with the "Digital Cable Ready" label. This letter further explains that (1) the proposed plug-and-play rules can be modified to include the architecture and functionality of PCs and other IT devices without sacrificing the security of digital cable content; (2) certain modifications to the proposed rules – not just to the definition of "unidirectional digital cable product" – and to the terms of the proposed DFAST License Agreement are necessary to ensure that PCs have the opportunity to qualify as Digital Cable Ready devices; (3) an objective and neutral certification process is necessary to promote investment and innovation; and (4) both consumers and the DTV transition will suffer if consumers cannot enjoy "Digital Cable Ready" PCs and related devices and technologies from the outset rather than waiting potentially years – until "bi-directional" standards are defined – to enjoy these products.

The rule changes proposed in the August 8 Ex Parte and herein can be implemented without undermining the security of digital content delivered over cable. Modifying the plug-and-play rules and the DFAST License Agreement, as proposed in the August 8 *Ex Parte* and

[1] *See* Ex Parte Letter and Memorandum of Understanding (with attachments) filed by major cable system operators and consumer electronics manufacturers, CS Docket No. 97-80, PP Docket No. 00-67 (Dec.19, 2002) ("*Plug-and-Play Proposal*").

herein, to recognize the open architecture of the PC (including the presence of user-accessible buses) will not undermine efforts to protect the security of digital content delivered over cable.

As explained in the August 8 *Ex Parte*, digital rights management (DRM) technologies developed for the PC environment protect the security of content by subjecting the content to robust encryption algorithms and then ensuring that the content, wherever it may go, cannot be decrypted without the appropriate authorization. Thus, although content subject to DRM can be copied and flow freely within and between any number of devices using a diversity of outputs and inputs (including Internet Protocol, IEEE 1394, UPnP and 802.11x (Wi-Fi)), secure content remains protected because it cannot be accessed or used unless the device or entity holding the content has the appropriate digital certification or authorization. DRM content protection systems are widely accepted in the IT environment; for example, a wide variety of content producers – including the major studios and record companies – have introduced new IP-based Internet services that allow downloading of movies, music and other high-value content protected by DRM technologies.[2] Accordingly, the open architecture of the PC alone does not justify excluding PCs from the *Plug-and-Play Proposal*.

Including PCs and other open architecture devices in the Plug-and-Play Proposal is fully consistent with the substantive goal of the Proposal, namely promoting the deployment of digital cable-ready devices while protecting the security of digital cable content, but requires important modifications to the proposed rules and to the terms of the DFAST License Agreement. As noted in the August 8 *Ex Parte*, both NCTA and CEA have stated that they did not intend to exclude PCs categorically from the plug-and-play standards applicable to unidirectional digital cable devices. However, the August 8 *Ex Parte* describes in detail how the proposed compatibility rules and encoding rules must be modified to ensure that PCs have a fair opportunity to qualify as Digital Cable Ready devices. The August 8 *Ex Parte* further explains that the DFAST License Agreement (which must be signed by any manufacturer seeking to develop and sell Digital Cable Ready devices including the POD security module) as proposed includes a number of terms that would operate to exclude PCs from incorporating PODs and being marketed as Digital Cable Ready devices.

To remedy the problems with the proposed DFAST License Agreement, the Commission should exercise the jurisdiction it asserted in the *Navigation Devices Declaratory Ruling* to specify when the copy protection requirements in a POD license exceed the "allowable limits" of the *Navigation Devices* rules by imposing more restrictions than are necessary to protect the security of the cable system and/or by undermining the statutory goal of promoting the

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[2] For example, Movielink™ allows consumers to "rent movies by downloading" at http://www.movielink.com. CinemaNow also allows PC users to "watch over 1,000 movies on demand here," at http://www.cinemanow.com.

availability of navigation devices at retail.[3] Specifically, the Commission should encourage CableLabs to negotiate with representatives of the IT industry to develop a workable DFAST License Agreement that can apply to PCs and other open architecture devices. The following non-comprehensive list describes some of the changes necessary to bring the DFAST License Agreement within the "allowable limits" of the Commission's *Navigation Devices* rules:

DFAST LICENSE AGREEMENT		
Term	**Recommended Change**	**DFAST Provision**
Definition/Scope	Definition of "Unidirectional Digital Cable Products" should be modified to include PCs and other devices that have two-way cable modem capabilities but are otherwise Compliant	License § 1.19
	Unidirectional Digital Cable Products should be entitled to certification (by an independent third-party testing facility or certification body or through self-certification) as long as they are Compliant and not intentionally designed to facilitate theft of service or circumvent security of service or content	License § 2.2
Licensing	Licensees should be able to distribute Test Tools and Licensed Components in encrypted software as long as decryption keys are provided only to CableLabs Licensees	License § 3.1(b), 3.3
	Licensees should have more opportunity to object to changes in the Compliance and Robustness Rules, *i.e.*, two (2) unaffiliated Licensees objecting to a rule change should be sufficient to trigger CableLabs (and possibly FCC) review of the proposed rule change	License § 6.2
Compliance Rules	The digital outputs authorized by the Compliance Rules are too narrow. The rules need to include the broader array of digital outputs over which appropriately encrypted content subject to DRM can be transported securely.	Ex. B § 2.4

[3] *In re Implementation of Section 304 of the Telecommunications Act of 1996; Commercial Availability of Navigation Devices*, Further Notice of Proposed Rulemaking and Declaratory Ruling, CS Docket No. 97-80, 15 FCC Rcd 18199, 18211 (2000) (*Navigation Devices Declaratory Ruling*). *See also* August 8 *Ex Parte* Letter at 11-13 (analyzing the Commission's jurisdiction under the *Navigation Devices Declaratory Ruling* to require changes in licensing agreements).

	The objective criteria for approving new digital outputs and/or content protection technologies should be stated with specificity (in terms of the functionality to be accomplished as opposed to the inclusion of particular technological elements) so that innovators know what standards they need to meet *before* they develop new technologies; the Compliance Rules should permit a potential vendor, not just an existing Licensee, to seek approval of new outputs and copy protection technologies; independent certifying bodies or the FCC, rather than CableLabs, should be responsible for certifying new outputs or technologies as compliant with the stated objective criteria	Ex. B § 2.4.4, 3.5.1(1)
	The proposed Copying, Recording and Storage Rules contemplate copying of Controlled Content in very limited circumstances, *i.e.*, for one generation or for purposes of creating a temporary buffer for the purpose of enabling immediate display of the content or pausing of the content during viewing. DRM technologies enable much more varied and flexible usage rights and business models. The Compliance Rules should be modified to recognize the flexibility of DRM-based content protection systems	Ex. B § 3
Robustness Rules	Robustness rules should be reasonable and should not preclude the use of public algorithms or peer-reviewed encryption technologies	Ex. C § 1.3
	Restrictions on output of Controlled Content should apply only to uncompressed content and should not apply to any of the buses of a device's internal architecture, including graphics buses in addition to memory and CPU buses	Ex. C § 2
	The Methods of Making Functions Robust should be broadened to allow functional compliance by PCs and DRM-based content protection technologies	Ex. C § 3
Watermarking	Delete obligation to incorporate to-be-determined "consensus watermark" because (1) obligations related to an as-yet-unchosen (and potentially unworkable) technology are beyond the legitimate scope of the license at this time; and (2) the provisions lack any objective standards to serve as the basis for CableLabs' declaring that a "consensus" watermark has been reached	Ex. B § 2.5

Because this list is not comprehensive and because other issues may arise as the various affected entities attempt to negotiate a workable DFAST License Agreement, the Commission should also establish an expedited procedure through which interested and affected entities may seek

Commission review of subsequent versions of the DFAST License Agreement or successor agreements licensing technology required to be incorporated in the POD.

To promote investment and encourage innovation, the testing and certification regime should be transparent, run by a neutral party according to objective standards, and efficient. Any entity that plans on designing or building a Compliant device needs confidence that the testing and certification process will be administered in a predictable way by a neutral third party and will yield a final response in a defined time frame. The process recommended in the *Proposal* fails to meet these criteria because it gives to CableLabs: (a) the responsibility of doing the testing or identifying what other entities (if any) are "qualified" to conduct such testing; (b) negotiating with CEA, the responsibility of defining the Test Suite or standard that devices must meet; and (c) discretion to develop the procedures for executing the Test Suite and reporting on the results. But consumers cannot be expected to rely on CableLabs, which is owned and operated but the cable industry, to certify competing products across a range of industries. Consumers have long trusted independent entities to serve this function. CableLabs should not be expected to take on a new cross-industry standards-certification role beyond its current role of promoting its patron industry. Moreover, the possibility of appealing an adverse CableLabs decision (whenever that decision may be rendered) to the Commission provides little comfort to an industry that measures the lifecycle of its products in months, not years. For that reason, the Commission should adopt the changes to the certification process described in the August 8 *Ex Parte*.

PCs and other open architecture devices and related technologies are already exciting consumers and playing a significant role in driving the transition to digital; this progress should not be derailed by precluding such devices from being marketed under the Digital Cable Ready label. Despite the demonstrated potential for PCs and related devices and technologies to spur consumer adoption of digital technologies, the *Plug-and-Play Proposal* as submitted threatens to exclude PCs from the market for unidirectional Digital Cable Ready devices. For example, the NCTA reply comments assert that PCs, which "by their nature" include user accessible buses, are too innately insecure to qualify as Digital Cable Ready devices.[4]

But excluding PCs from the market for Digital Cable Ready devices because of misconceptions about the security of content delivered to and through such devices would retard consumer access to the very kinds of technological innovations that already are driving consumer participation in the digital transition. For example, the Windows Media Center PC, described in the August 8 *Ex Parte* and demonstrated at the Commission on September 2, 2003, would be more expensive and more difficult to set up and use if it were prohibited – because of its

[4] NCTA Reply Comments, CS Docket No. 97-80, PP Docket No. 00-67, at 31 (Apr. 28, 2003).

architecture rather than its functionality – from incorporating the POD and thus could only access digital cable content through a separate set-top box. And if the Media Center PC were modified to comply with the *Plug-and-Play Proposal* as written, it would be much more expensive (because it would require architectural modifications including the installation of a closed "set-top box" inside the PC case) and could not incorporate some of the features consumers find most compelling and useful, such as Wi-Fi home networking. Imposing these kinds of artificial regulatory restrictions on the kinds of digital devices available to consumers would slow the transition to digital at a time when consumers are moving more quickly to adopt digital technologies and the Commission has committed to promoting this transition.

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For the foregoing reasons, we ask the Commission to adopt the modifications to the *Plug-and-Play Proposal* recommended in the August 8 *Ex Parte* and herein (and, with respect to the DFAST License Agreement, to call upon CableLabs to make the recommended modifications) to ensure that PCs and PC-based technologies are given the chance to participate in the nascent market for digital cable devices and products. Taking such action will encourage investment in diverse technologies and spur the digital transition by affording consumers access to both high value content and to the technological innovations that will allow them to maximize enjoyment of that content. Conversely, confining the *Plug-and-Play Proposal* to limited technologies – in effect, choosing the technological winners before the market has a chance to develop – would suppress innovation and reduce consumer choice.

Respectfully submitted,

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